

ABSTRACT

Provided are a polymer compound having high transparency for use in a photoresist composition for microfabrication of the next generation, a resist composition using the polymer compound as a base polymer, and a dissolution inhibitor agent composed of the polymer compound.

To ensure etching resistance, an alicyclic group is introduced into a side chain portion. Hydrogen atoms on the ring of the alicyclic group are highly fluorinated to ensure transparency to light of 157 nanometer wavelength, represented by an adsorption coefficient equal to or less than $3.0 \mu\text{m}^{-1}$. As the alicyclic group, a polycyclic group is preferably used. Hydrogen atoms are highly fluorinated by preferably substituting all hydrogen atoms on the ring by fluorine atoms, that is, forming a perfluoroalicyclic group. The resist composition is formed by using the polymer compound as a base polymer and further, the dissolution inhibitor agent is formed of the polymer compound.